

TOXICOLOGY AND APPLIED PHARMACOLOGY

July 20-22, 2017 | Chicago, USA

Intensive study of *Catharanthus roseus* as herbal medicine for the purpose of treatment and reduce complications of acute leukemia

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Introduction: Medicinal plants are considered as important source of medicines and drugs manufacturer because they contain active compounds that had medical biological activity, so it has adopted in the preparation and the preparation of a lot of drugs because of their speed in the therapeutic effect and the lack appearance of negative side effects which caused by medications which chemically manufactured, where underwent a lot of scientific studies and extensive research to uncover some important plants, which have had a significant positive impact on public health and the impact in many diseases, including cancer.

Aim: The present study aimed to use raw *Catharanthus roseus* as herbal medicinal plant for the purpose of its use in the medical and pharmaceutical fields and alternative medicine, or the so-called herbs medicine, for the purpose of reducing or eliminating the leukemia and complications of this disease.

Methodology: The present study included 60 Albino male mice divided into four groups with count 15 mice for each. Group-A was the control group, Group-B was mice with oral feeding of *C. roseus* plant, Group-C was induced leukemia mice by subcutaneous injection of (300 mg/kg B.W benzene), while Group-D was induced leukemia mice treated by oral feeding *C. roseus* plant. "SHIMADZU" HPLC was used for Vincristine estimation in plant and vitamin D in mice serum. ELISA technique was used for serum ferritin determination. UV-VIS spectrophotometer has been used for estimation of GSH-Px and GST activities using special kits, while AAS technique was used for essential trace elements determination. There were Hb and WBC examinations and histopathology study for liver, kidney, spleen and bone marrow were done.

Results: Analysis showed that *C. roseus* contain Vincristine drug up to 148 µg/gm. The following table shows the statistically significant effect of vincristine, antioxidants and other active ingredients on vital parameters of treated mice:

Conclusion: This study concluded that *C. roseus* had direct impact on biological system included alkaloid VCR, which significantly improve the efficiency of treatment for AL and extend survival in mice and have antioxidant activity in biological system.

Biography

Mufeed J Ewadh has expertise in many fields of biochemistry research in his institute dealing with health problem, herbal extraction and alternative medicine. He did his Post-doctorate course at Marburg University, Germany and participated in electrophoresis workshop in Japan for two weeks as well as in biochemical workshop in Leipzig, Germany. He is the Chief Editor of *Medical Journal of Babylon*, Iraq.

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